

## **On solving diffraction problems for the junctions of open waveguides in the classes of distributions**

Pleshchinskii N., Tumakov D.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### **Abstract**

This study addresses some peculiarities in the application of method of Fourier transformation to solving the problems of electromagnetic wave diffraction on dielectric bodies bounded by coordinate lines or surfaces. Emphasis is on the two dimensional Helmholtz equation with a real piecewise constant coefficient. The solutions to this equation are established in the classes of distributions of slow growth at infinity.

---